

FIG. 1

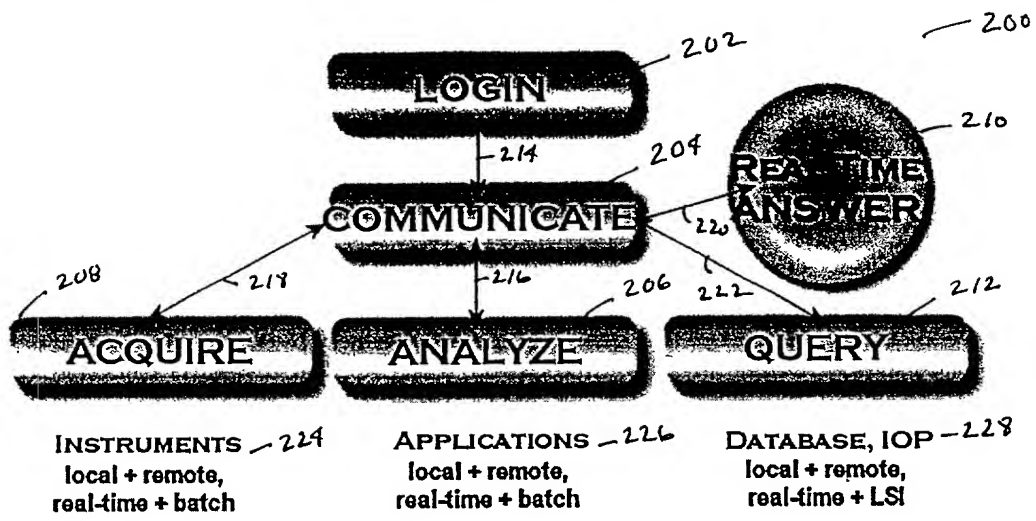


FIG. 2

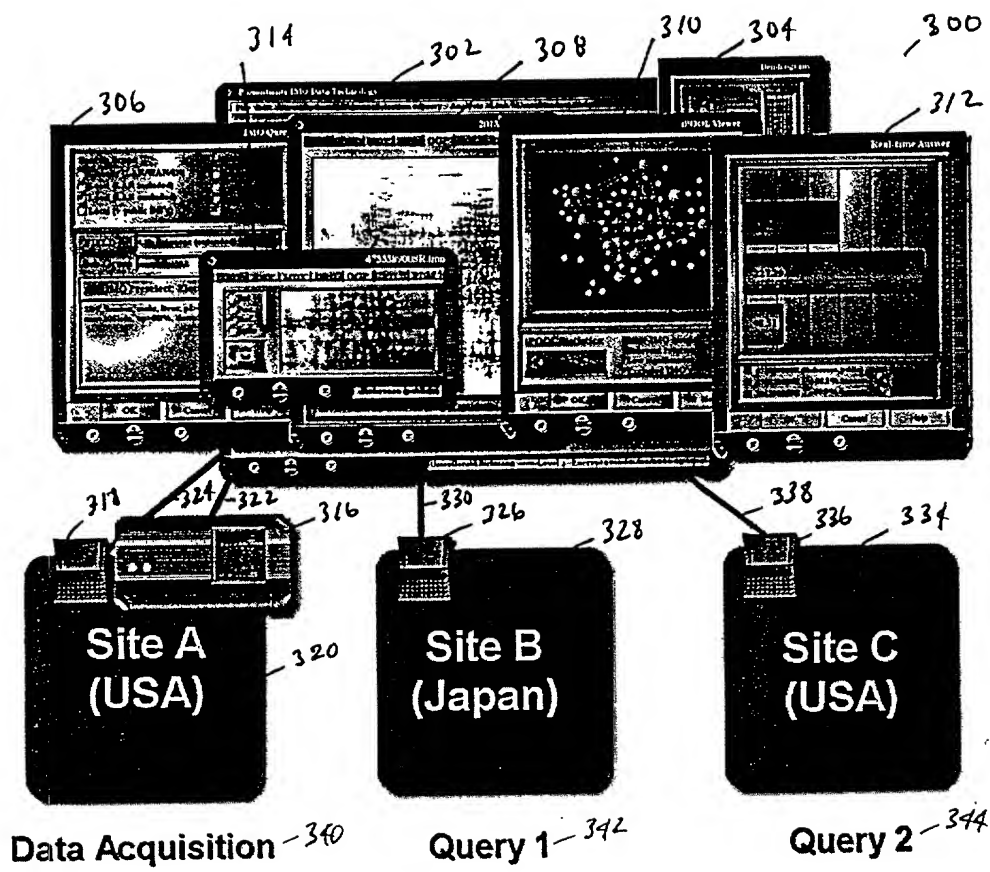


FIG. 3

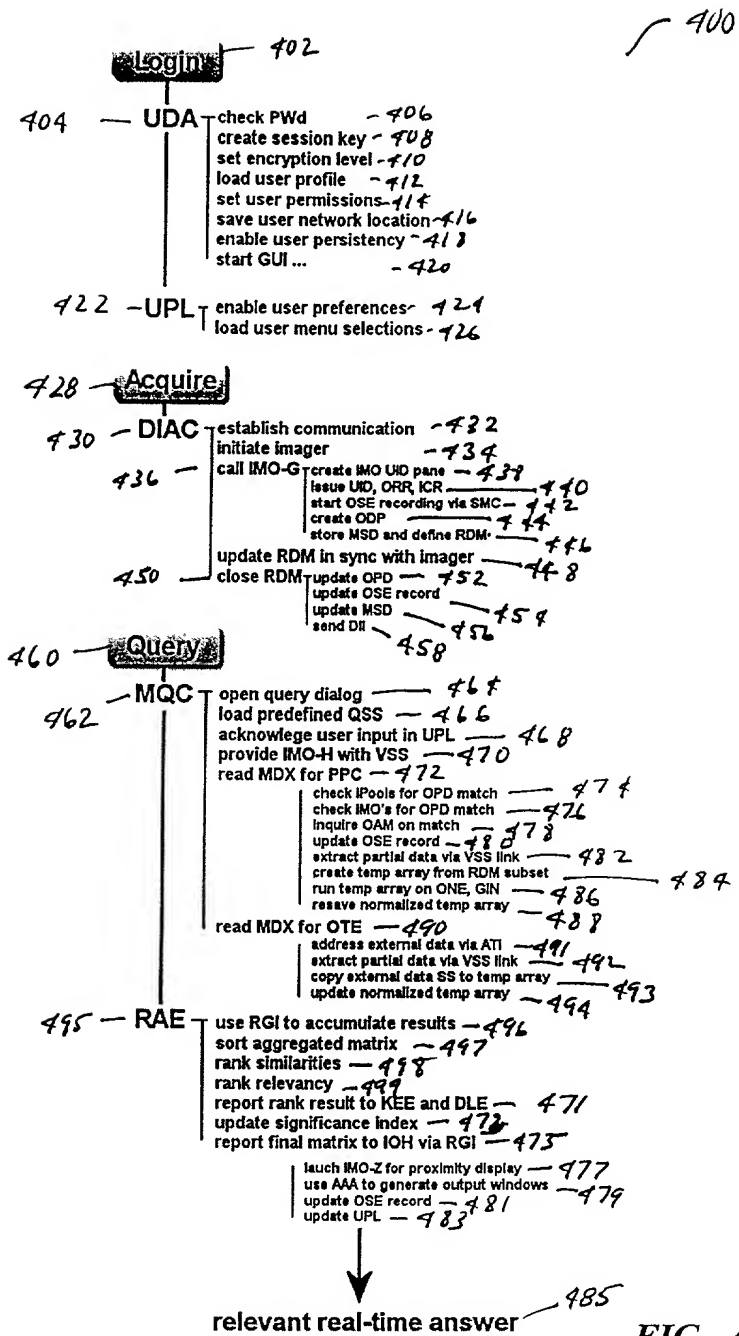


FIG. 4

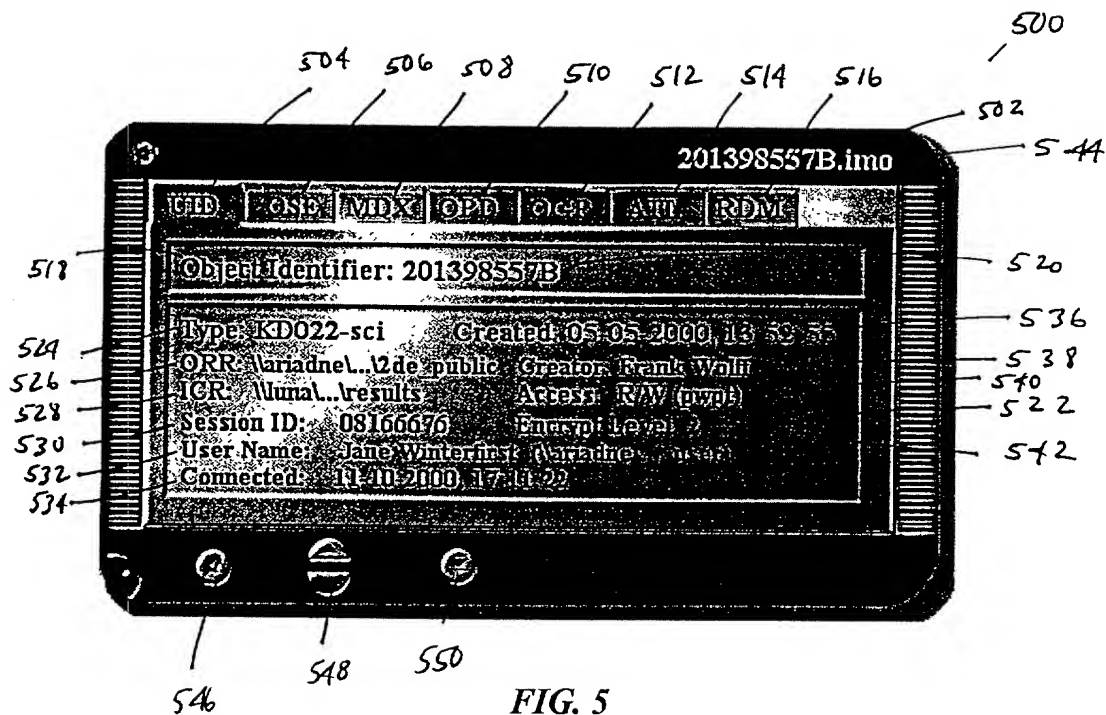


FIG. 5

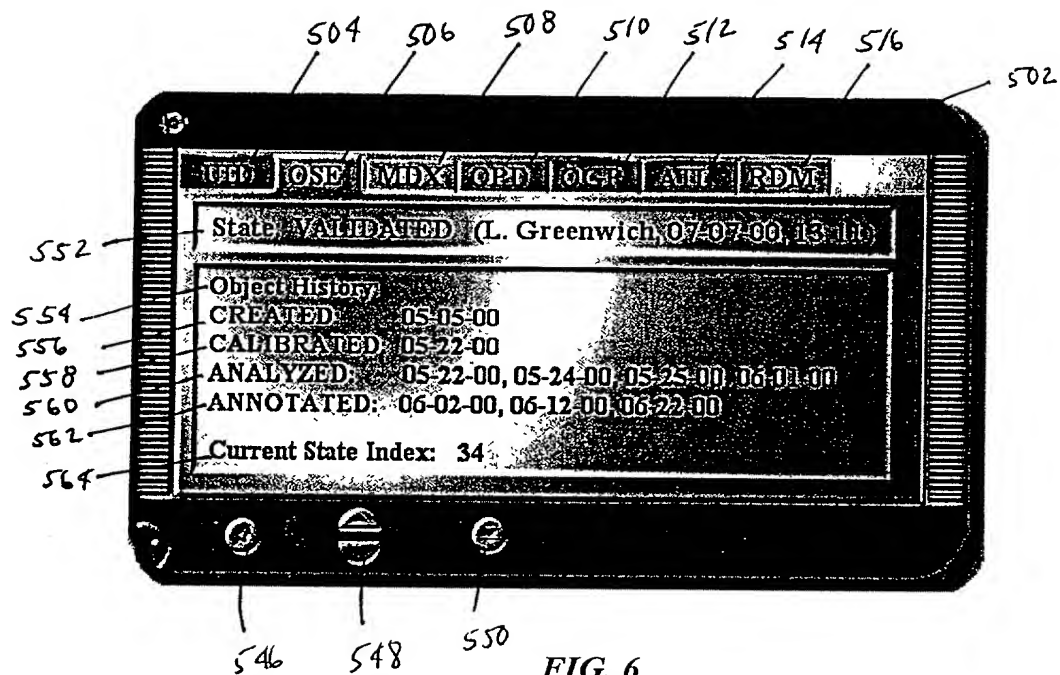


FIG. 6

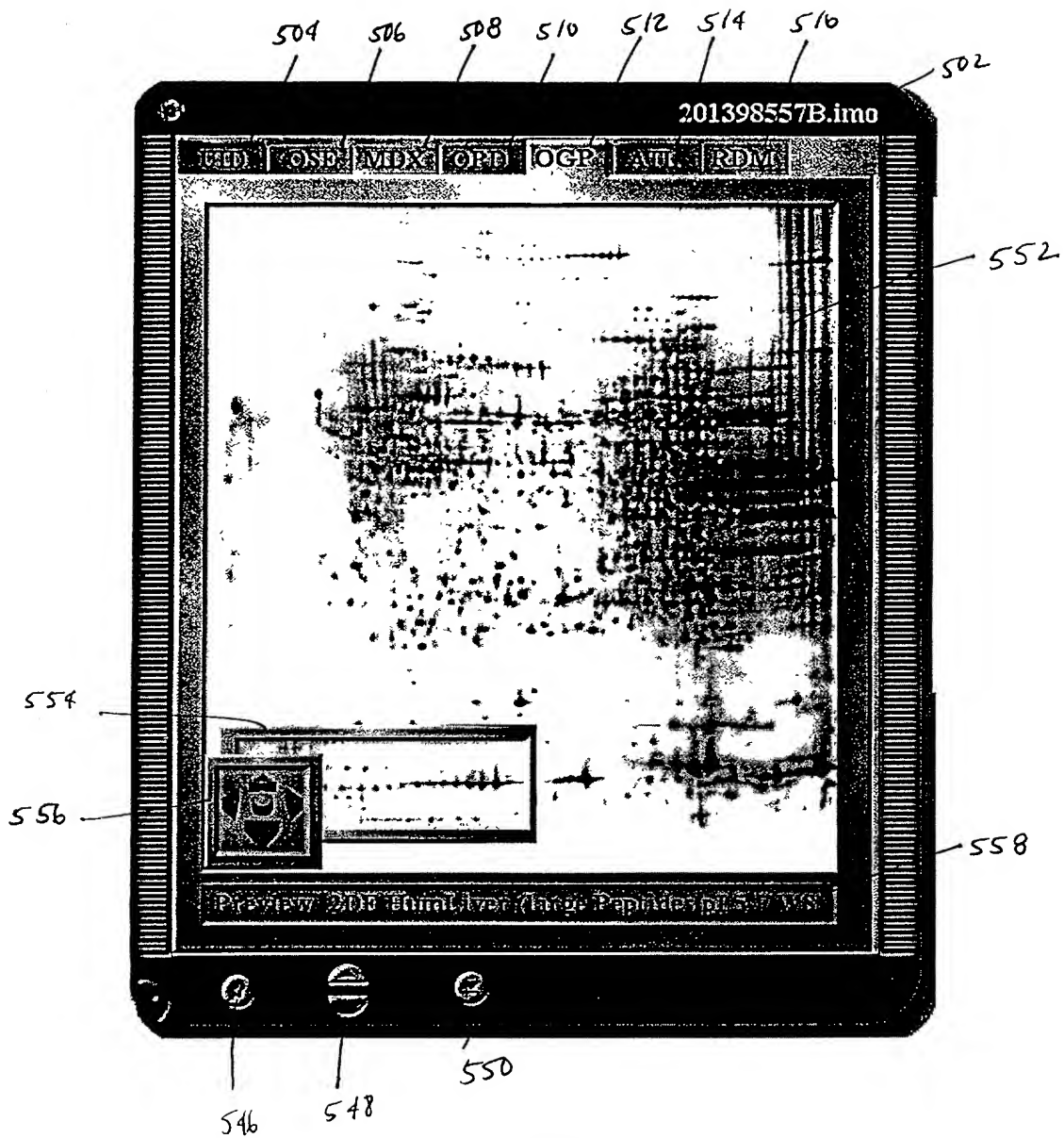


FIG. 7

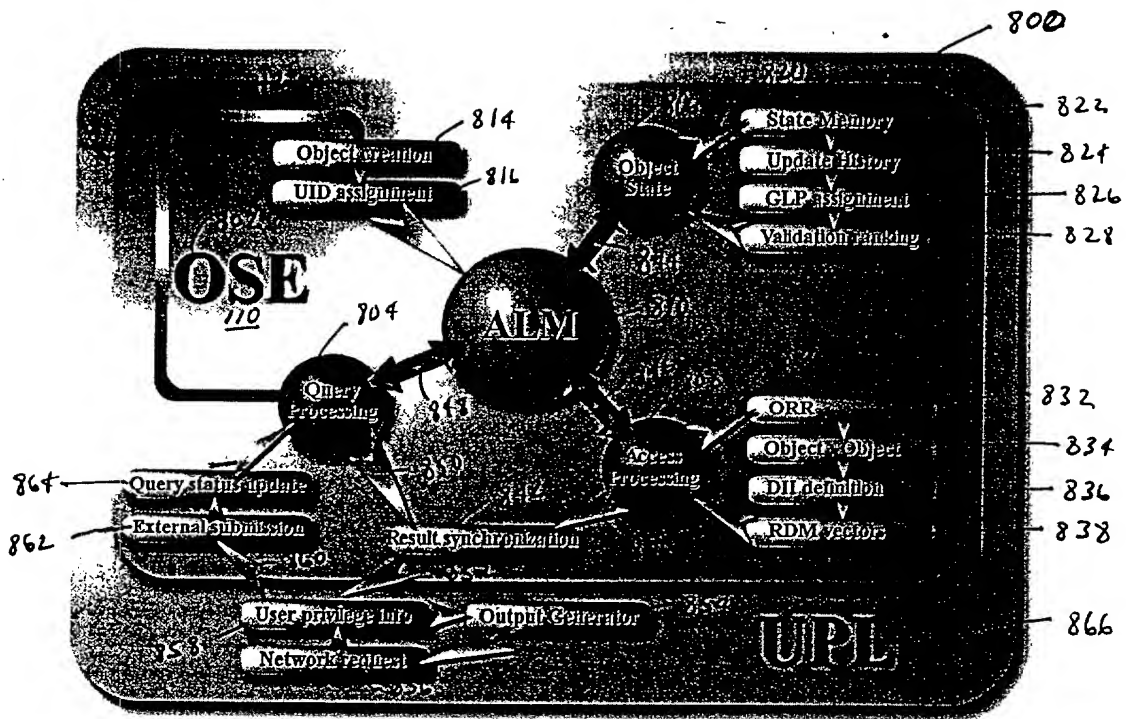


FIG. 8

IMO OSE State Lookup Table — 900

000 Object created

010 Data acquisition

- 011 DA in progress
- 012 DA interrupted
- 013 DA continued
- 014 DA completed

020 Data type definition

- 021 DT raw
- 022 DT matrix
- 023 DT structure
- 024 DT vector
- 025 DT pointer
- 026 DT path
- 027 DT binary
- 028 DT ASCII

040 Bio-Calibrations

- 041 C quantitation
- 042 C molecular weight
- 043 C isoelectric point
- 044 C enzyme-activity
- 045 C immunological activity
- 046 C other bio-activity

050 Image-Calibrations

- 051 C optical density (OD)
- 052 C fluorescence intensity
- 053 C luminescence intensity
- 054 C white balance
- 055 C light intensity
- 056 C dynamic range verification

060 Measurement-Calibrations

- 061 C origin
- 062 C size x
- 063 C size y
- 064 C position x
- 065 C position y
- 066 C position z
- 067 C length
- 068 C width
- 069 C depth

070 Annotations

- 071 Descriptive text
- 072 Base designation (DNA sequence)

- 073 Aminoacid designation (protein sequence)

- 074 Molecule function

- 075 Molecular structure

080 Functionality information

- 081 Organism
- 082 Metabolic phase
- 083 Disease relationship

100 Standardization/normalization

- 101 STD threshold
- 102 STD base function (e.g., baseline)
- 103 STD base plane (e.g., in 3D space)
- 14x STD all 04x (Bio; e.g., 141 STD quantitation)
- 15x STD all 05x (Image; e.g., 152 STD fluorescence intensity)

300 Experiment validation

- 301 Invalid conditions
- 302 Invalid experiment
- 303 Invalid interpretation
- 304 Invalid analysis tool applied
- 310 Unsure result
- 311 Unsure conditions
- 312 Unsure method
- 320 Validated method
- 321 Validated analysis
- 333 Validated experiment
- 340 Forensic experiment
- 350 Certified experiment

400 Output request

- 410 Numerical output generated
- 411 Graphical output generated
- 420 Remote output sent
- 430 Output printed

900 Access information

- 901 Access denied
- 902 Time limit exceeded
- 903 User limit exceeded
- 910 Inter-object communication granted
- 911 User access to object granted
- 920 Full access to object granted

FIG. 9

1000

Object:

State	User/level	Network	Date/time stamp	(Explanation)
000	RAS/05	00220	12/20/2000 14:33:05	(object created)
011	WUD/02	00220	12/20/2000 14:33:07	(data: acquisition in progress)
014	WUD/02	00220	12/20/2000 16:53:07	(data: acquisition completed)
022	WUD/02	00220	12/20/2000 16:55:22	(data: matrix defined)
056	GOT/03	00220	12/21/2000 08:00:57	(image: dynam. range verified)
052	GOT/03	00220	12/21/2000 08:01:46	(image: fluoresc. intens. calib.)
041	GOT/03	00220	12/21/2000 08:16:31	(bio: quantitation calib.)
061	GOT/03	00220	12/21/2000 08:18:58	(image: origin calib.)
062	GOT/03	00220	12/21/2000 08:20:25	(image: size x calib.)
063	GOT/03	00220	12/21/2000 08:23:19	(image: size y calib.)
101	GOT/03	00220	12/21/2000 08:25:44	(std/norm: detection threshold)
164	GOT/03	00220	12/21/2000 08:41:12	(std/norm: measurement x)
165	GOT/03	00220	12/21/2000 08:45:30	(std/norm: measurement y)
901	KRE/05	00080	12/21/2000 08:45:31	(access denied)
911	AAH/02	04092	12/21/2000 08:45:44	(user: access to object granted)
071	AAH/02	04092	12/21/2000 08:45:50	(anno: descript. text)
024	GOT/03	00220	12/21/2000 08:52:12	(data: vector defined)
911	BLD/03	00693	12/21/2000 09:02:36	(user: access to object granted)
073	BLD/03	00693	12/21/2000 09:02:39	(anno: AA protein sequence)
045	GOT/03	00220	12/21/2000 09:14:08	(bio: immunol. activity)
046	GOT/03	00220	12/21/2000 09:39:41	(bio: other bio-activity)
410	GOT/03	00220	12/21/2000 09:42:31	(output: numerical output)
411	GOT/03	00220	12/21/2000 09:44:07	(output: graphical output)
430	GOT/03	00220	12/21/2000 09:42:31	(output: printed)
....				

FIG. 10

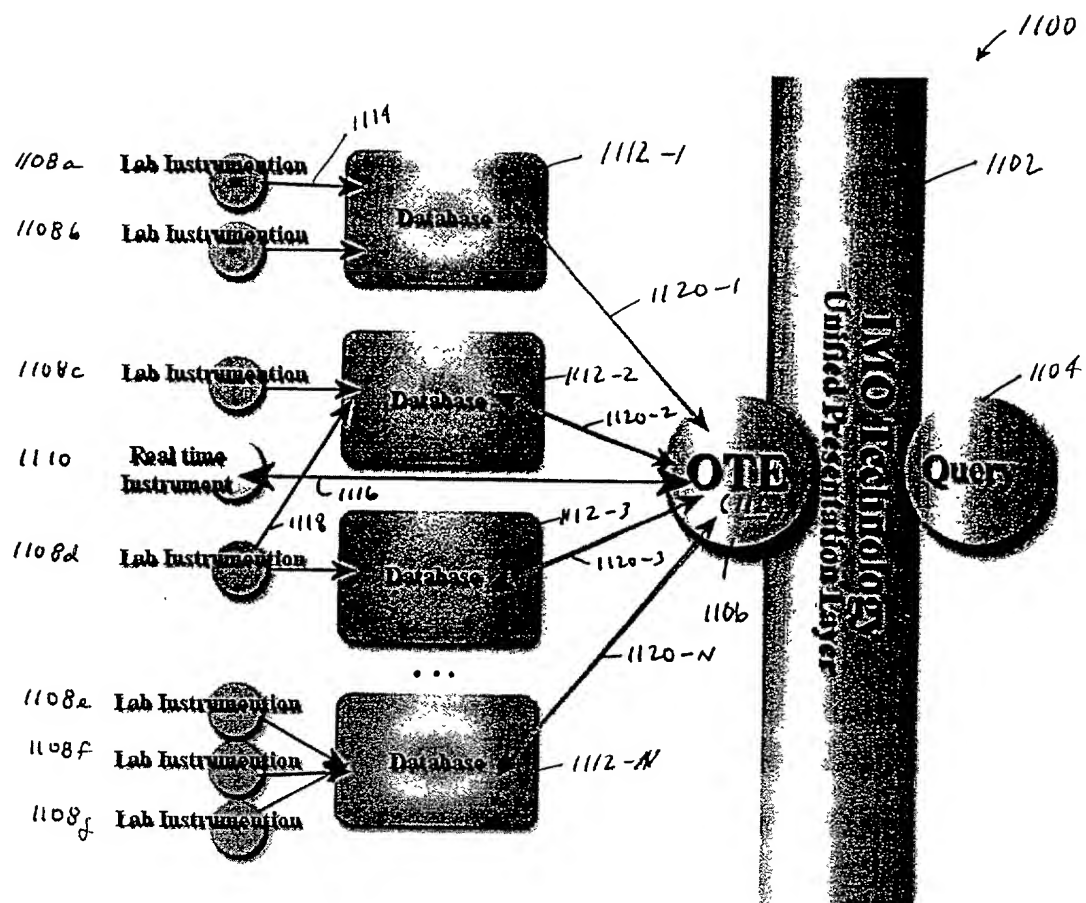


FIG. 11

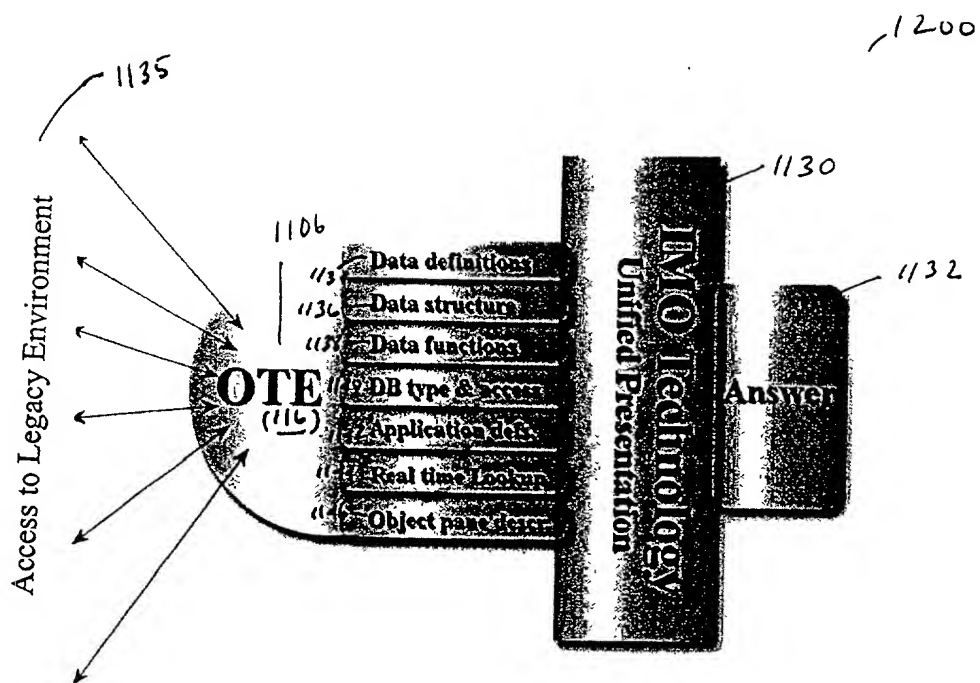


FIG. 12

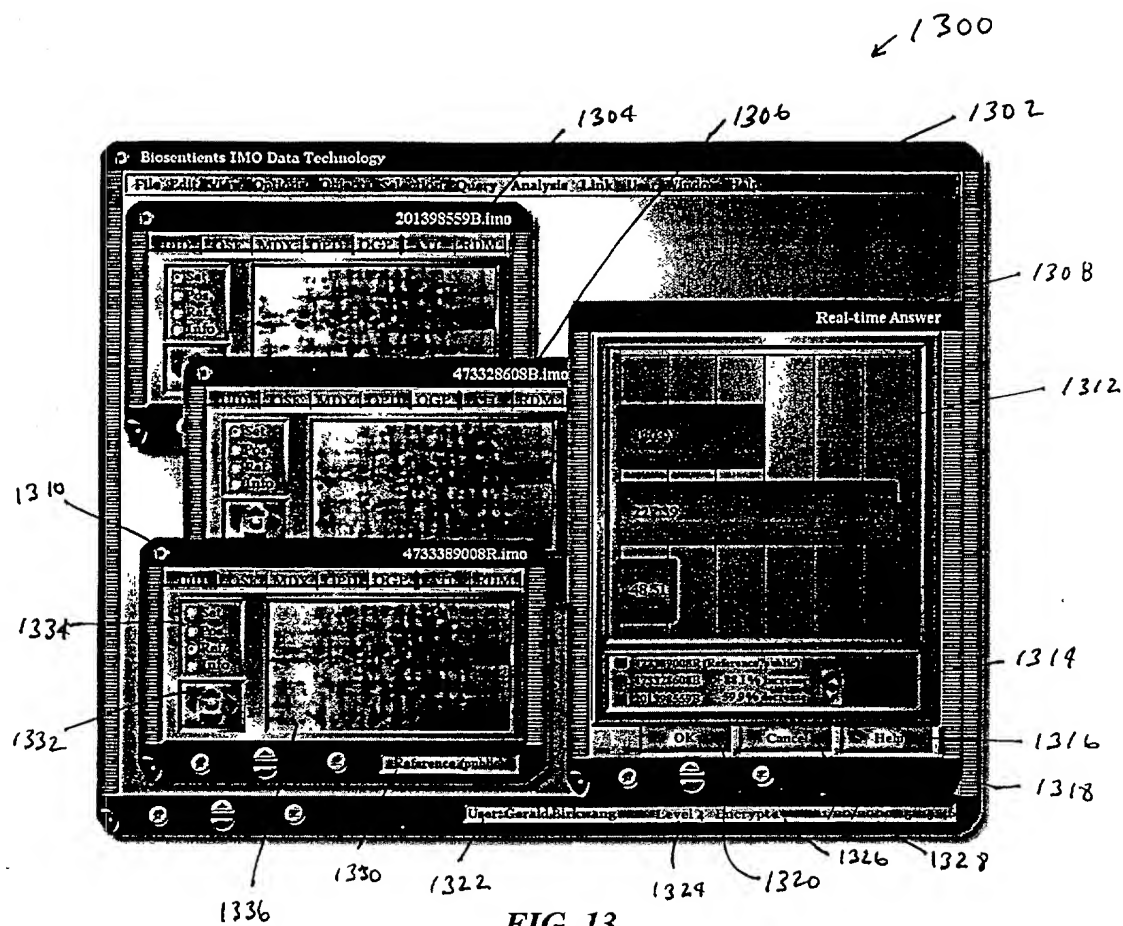


FIG. 13

FIG. 14

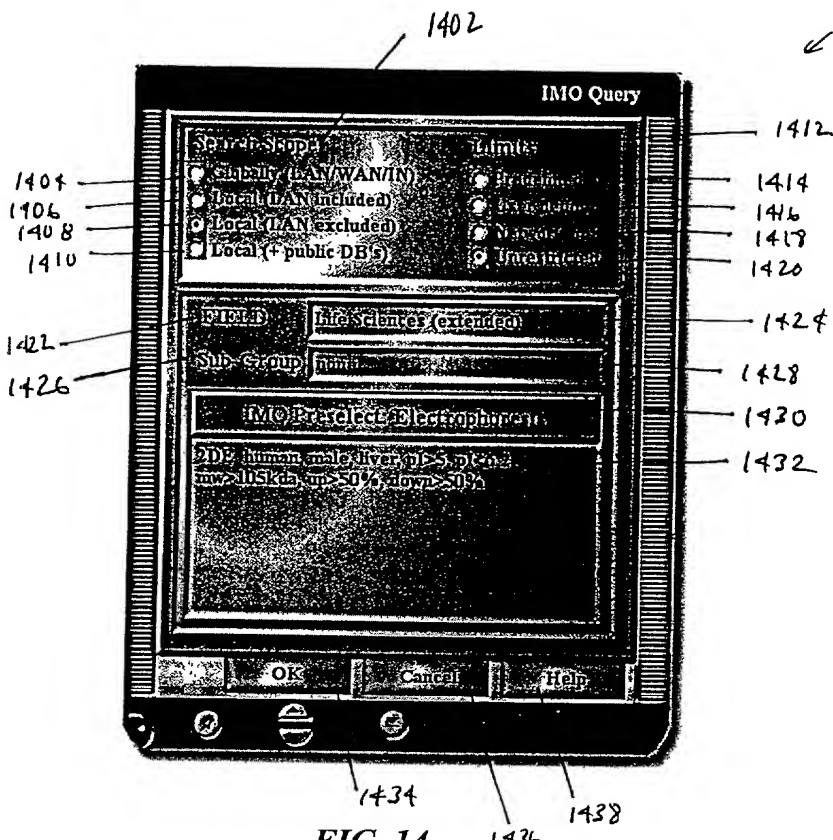


FIG. 14

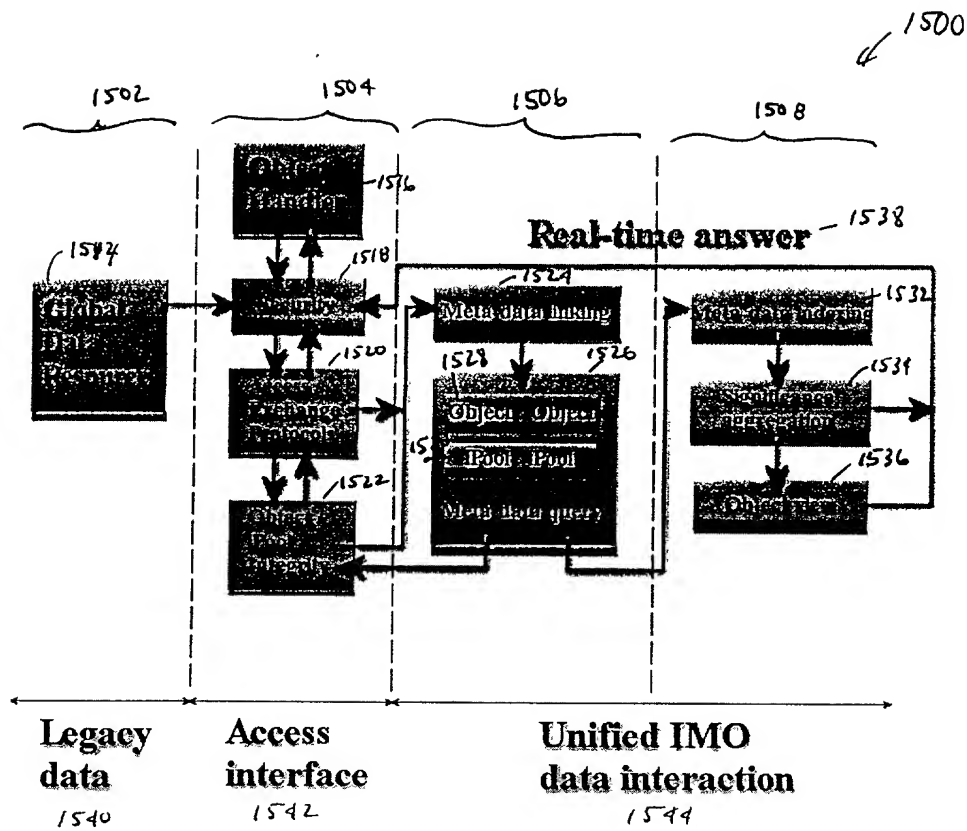


FIG. 15

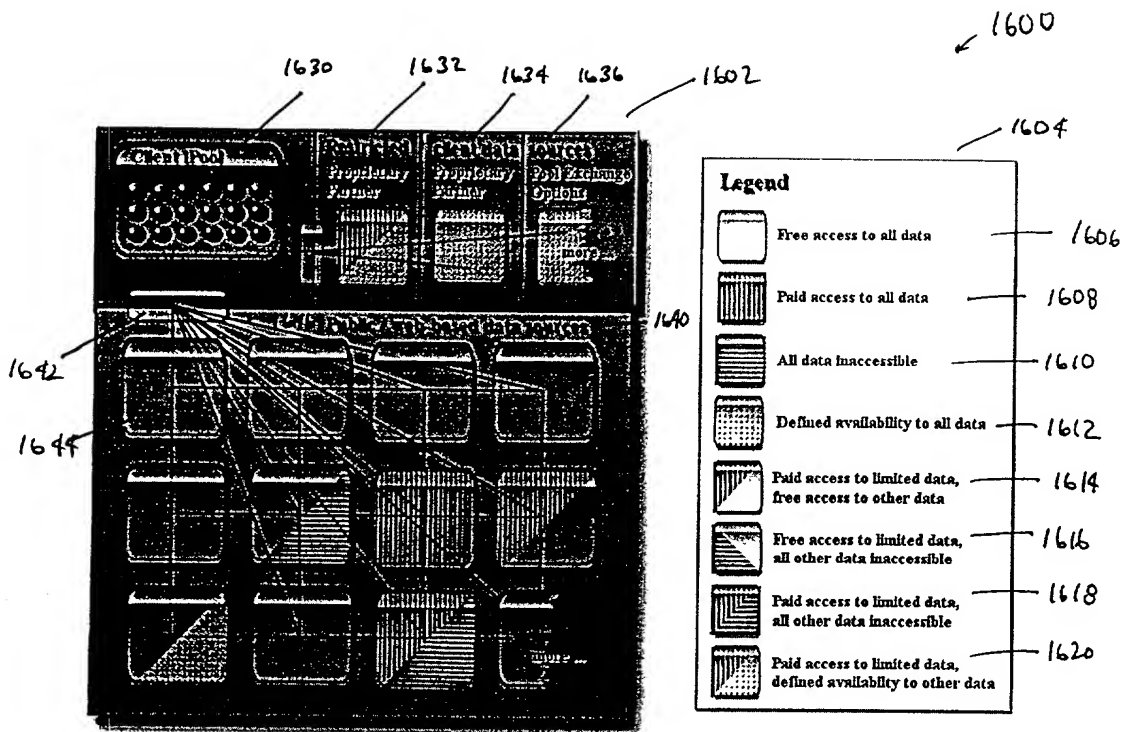


FIG. 16

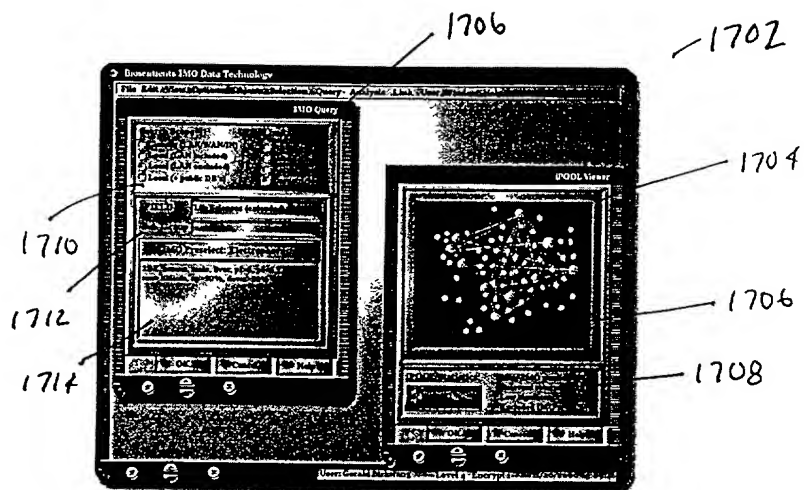


FIG. 17A

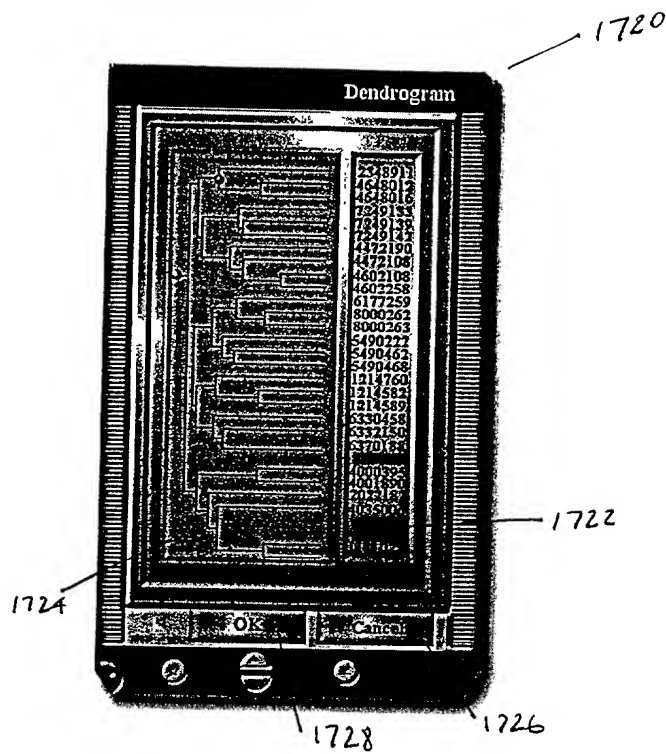


FIG. 17B

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FIG. 17C

